TONSILLITIS AND ADENOIDS

BY DR. MONA AHMED A/RAHIM

Definition: Is an inflammation of the tonsils.

Types:

Acute tonsillitis - Chronic tonsillitis

Acute tonsillitis

Classification:

acute catarrhal or superficial tonsillitis: Here tonsillitis is a **part of generalized pharyngitis** and seen in viral infections

acute follicular tonsillitis: In which tonsillar **crypts** become filled with **purulent materials**

acute parenchymatous tonsillitis: Here tonsils are uniformly enlarged and red

acute membranous tonsillitis: The exudates in the crypts coalesces to form membrane on the surface

Etiology:

Affects school-age children but adults can also be affected. It is rare in infants (< 1 year age) and persons above 50 years.

Causative organisms:

Group A beta hemolytic streptococci - Haemophilus influenza - Streptococcus pneumoniae

Staphylococci --Tuberculosis (in immunocompromised)--

Viruses: adenovirus, Epstein-Bar virus and herpes simplex virus

Symptoms:

sore throat - difficulty in swallowing + pain -- fever (can be accompanied by rigors and chills)

ear ache - headache - generalized body fatigue

Signs:

breath is foetid and tongue is coated - hyperaemia of the pillars, soft palate and uvula

red and swollen tonsils with yellowish spots in the crypts (follicular tonsillitis) , whitish membrane on the medial surface of the tonsils (membranous tonsillitis) or

enlarged and congestive tonsils with swollen uvula (acute parenchymatous tonsillitis) - enlarged and tender jugulodigastric lymph nodes

Treatment:

bed rest + plenty of fluids - analgesia (Aspirin or Paracetamol)

antimicrobial (Penicillin is the drug of choice) should be continued for 7 -10 days

Complications:

chronic tonsillitis with recurrent acute attacks - peritonsillar abscess (quinsy) - parapharyngeal abscess

cervical abscess - acute otitis media - rheumatic fever - acute golomerulonephritis

sub acute bacterial endocarditis

Differential diagnosis:

Diphtheria - Infectious mononucleosis - malignancy (lymphoma, leukemia)

Indications for tonsillectomy:

recurrent infections (> 6 times per year) - peritonsilar abscess - possibility of malignancy

sleep apnoe - febrile convulsions

Chronic tonsillitis

chronic follicular tonsillitis - chronic parenchymatous tonsillitis - chronic fibroid tonsillitis

Etiology:

may be a complication of acute tonsillitis - subclinical infection of tonsils without acute attack

chronic infection of sinuses or teeth may be a predisposing factor

Clinical features:

recurrent attacks of acute tonsillitis - chronic irritation in throat and cough - bad taste in mouth and(halitosis)

ttt:

conservative treatment: attention to diet, general health and treatment of coexisting infections of teeth, sinuses and nose.

tonsillectomy: if tonsils interfere with deglutition, speech, respiration or there is recurrent attacks of tonsillitis

ADENOIDS
(NASOPHARYNGEAL TONSIL)

situated at the junction of the posterior wall and roof of the nasopharynx

composed of lymphoid tissues covered by columnar epithelium

it is present at birth physiologically enlarged up to 6 years then regress and completely disappears by the age of 20

Etiology:

Recurrent attacks of rhinitis, tonsillitis and sinusitis cause adenoid infection and hyperplasia

Symptoms:

nasal obstruction - mouth breathing - nasal discharge

adenoid face:

elongated face, dull expression, nasal discharge, open mouth, hitched-up upper lip, prominent and overcrowded upper teeth, high-arched palate

pulmonary hypertension

Diagnosis:

Nasopharyngoscopy -X-ray nasopharynx lateral view

Treatment:

When symptoms are not severe, decongestant nasal drops + antihistamines is the

treatment of choice

Marked symptoms, treatment is adenoidectomy

EPISTAXIS

Definition : It is bleeding per nose

Anatomy :

The main blood vessils that contributes in epistaxis are :

1. Anterior ethmoidal artery – from the internal carotid artery 2. Greater palatine artery

3. Sphenopalatine artery 4. Superior labial artery

Causes.:

A. Local :

1.Idiopathic > 90% 2. Nasal picking specialy in children 3. Trauma 4. Foreign body nose

5. After nasal surgery 6. Inflamatory e.g chronic sinusitis 7. Fever

8. dry weather 9. hot weather 10. cold weather

11. benign and malignant tumours of the nose , paranasal sinuses and nasopharynx

B. General :

1. Hypertension 2.Raised venous pressure in cardiac or pulmonary diseases e. g miteral stenosis

3. Renal failure 4. Chronic liver diseases e g liver cirrhosis or liver failure

5 .Diseases of blood and blood vessels:

-Leukaemia -Haemophelia -Christmas disease (lack of Vit K -(Purpura -Sickle cell anaemia

-Vit C diffeciency - Von Willebrand's disease - Familiar haemorrhegic telangectasia (Osler – Rendu disease

Sites Of Bleeding :

1. nasal septum : Little's area (Kiesseibach's plexus) 75%-90% of all cases of epistaxis arises from the septum .

2. inferior turbinates and nasal floor

3 . above the middle turbinate : arises from anterior ethmoidal artery and usually occurs in hypertensive patients

4. Wood rough's area : it is a venous plexus in the posterior end of the inferior turbinate and it is the commonest site of bleeding in hypertensive patients

Treatment :

A. Immediate :

1. Pressure on the nostril compresses the vessels in Little's area

2. packing of the nose :

- anterior nasal packing with gauze impregnated in vaselin or tetracycline ointment

- posterior nasal packing by gauze or Foley's catheter

B. Curative and preventive :

Done when immediate treatment fails or repeated bleeding occurs :

1. cauterization of the bleeding point either with galvanocautery or silver niterate (chemical cautery)

2. examination under general anesthesia to identify the site of bleeding

3 . arterial ligation done on rare occasions when packing and cautery fails

- external carotid artery - ligation or clipping of the maxillary artery-- ethmoidal artery

4. embolization.

UPPER RESPIRATORY TRACT OBSTRUCTION

Definition

It is obstruction of the respiratory tract above the larynx.

The upper airway extends from the nares to the inferior end of the larynx.

The lower airway extends from the inferior end of the larynx to the terminal bronchioles.

Stridor

Is a physical sign common to all causes of URT obstruction

It is a harsh, raspy noise produced by the flow of air through partially obstructed airway

Types of stridor

Inspiratory stridor: =Obstruction at the level of the larynx or above

Biphasic stridor: =Obstruction in the trachea

Expiratory stridor:=0bstruction below the carena

Causes:-

1- Larynx

Supraglottic: laryngomalaci web cystic hygroma laryngocele

Glottic: web - vocal cord paralysis

Subglottic: web - stenosis haemangioma

2- **Trachea & Bronchi** web - stenosis - tracheomalacia

3- **Trauma** thermal &chemical external surgical intubation

4- **Foreign Body** laryngeal - tracheal - broncheal

5- I**nflammtory** acute laryngitis- laryngeotracheobronchitis (croup) - acute epiglottitis - diphtheria

6- **Allergy**

7- **Neoplasm**

Management

1- History 2- secure the upper airway

FOREIGN BODIES

History:

Usually there is definitive history of choking followed by paroxysmal coughing then subsides.

After the initial paroxysm of coughing the tracheobronchial mucosa becomes tolerant to the F.B & cough ceases.

The triad of symptoms of F.B inhalation are

1. Chocking 2- Choughing 3- Wheezing all these Present in 91% OF pts.

Sudden onset of wheeze in a child not known to be asthmatic especially if it is unilateral possibility of F.B inhalation

Persistent fever with respiratory tract infection not respond to treatment is possible to be F.B inhalation.

Persistent or recurrent penumonia needs Brochoscopy to execlude the presnce of F.B

Clinical features:

Patient present with variety of symptoms depending on the location of the F.B & degree of obstruction

- In the first few hours
- Audible click may be heared by stethoscope due to movement of F.B
- Unilateral respiratory wheeze & reduced air entery indecate F.B bronchus.
- If F.B not removed within the first 24 hours
- Pneumotic signes may be found - Atelectasis of the distal lung - Lung absces (takes several months)

Investigation

Radiological, X RAY with extended neck both antroposterior & lateral views

Sometimes may need CT SCAN in long standing F.Bs

TTT:- laryngoscopy or bronchoscopy

TRACHEOSTOMY

is a surgical procedure to create an opening through the neck into the trachea.A tube is usually placed through this opening.

Indication:-	Procedure:-
1- foreign body inhalation 2- major head and neck surgeries 3- severe maxillofacial injuries and laryngeal trauma 4- cervical spine injuries with vocal cord that are difficult to visualizea 5- angioneuretic oedema	1- make skin incision (vertical or transverse) between sternal notch & cricoid cartilage 2- mid line vertical incision deviding strap muscles 3- division of thyroid isthmus or elevate it 4- vertical tracheal incision 5- insert tracheostomy tube fixed either by tape around the neck or stay suture

Complications:-

1- Early

Infection - haemorrhage - subcutaneous emphysema - pneumothorax- tracheoesophageal fistula

recurrent laryngeal nerve injury - tube displacement

2- Delayed := tracheal stenosis - tracheocutaneous fistula - delay tracheoesophageal fistula

EXTERNAL EAR DISEASES (DR. MONA AHMED A/RAHIM ENT SURGEON)

Perichondritis and Inflammation of the external auditory canal (EAC)

Perichondritis

results from infection secondary to laceration, haematoma or surgical incision of the pinna

It can also result from extension of infection from diffused otitis externa or furunculosis of the EAM.

Commonest organisms are pseudomonas and mixed flora

Symptoms:

Redness and hotness of the pinna followed by stiffness, later on an abscess may be formed between cartilage and perichondrium and leads to necrosis of the cartilage.

Treatment:-

Early intravenous antibiotic (broad spectrum) + analgesia.

If an abscess has been formed it must be drained and pus taken for culture and sensitivity + tied dressing

Inflammation of the EAC

Bacterial:

localized O.E (furunculosis) - diffused O.E - malignant O.E

Fungal: (otomycosis)

Viral: - Herpes Zoster oticus

FURUNCLE

A furuncle is a staphylococcal infection of the hair follicle.

Patient presented with severe pain and tenderness aggravated by movement of the pinna and jaw movement.

Treatment:

In early stage before abscess formation treatment is consisted of:

- antibiotic - analgesia - 10% Ecthammol glycerin pack

If abscess is formed then incision and draining is mandatory

Diffused O.E

It is diffused inflammation of meatal skin. Common in hot and humid climates and in swimmers

Commonest organisms:

Staph aureus - Pseudomonas - B.Protius - E.Colli

Symptoms:

Hot burning in the ear followed by pain which is aggravated by jaw movement. Then ear start oozing and followed by serous discharge later becomes thick and purulent. Also there is oedema and obstruction of the external canal

Treatment:

ear toilet - ear packing with gauze wick soaked in antibiotic – steroid preparation inserted in the canal. To be changed every two to three days.

antibiotic (broad spectrum) - analgesia

Otomycosis

It is a fungal infection of the ear canal.

causative agents:

Asparigillus niger - Asparigillus fumigatus - Candida albicans

Seen in hot and humid climates in tropical and some subtropical countries

Symptoms: 1- Intense itching 2- Pain in the ear 3- Watery discharge

Treatment:

ear toilet to remove all fungal debris. It is done by syringing, suction or mopping

antifungal ear drops e.g. Nystatin, Clotrimazole or Povidone iodine

Herpes Zoster oticus (Ramsy Hunt Syndrome

acute peripheral facial palsy associated with otalgia, cutaneous vesicles that involve the tympanic membrane, meatal skin wall, cochlea and post-auricular groove.

May be associated with hearing loss, dysacusis and vertigo

Treatment: Steroids + Antiviral therapy

Malignant Otitis Externa (Necrotizing O.E)

An inflammatory condition caused by pseudomonous infection

occurs in: the elderly - diabetics - patients on immunotherapy

It looks like diffused otitis externa but there is excruciating pain and granulation tissue in the EAC.

Facial palsy is common.

Infection may spread to the skull base and Jugular foramen leads to multiple cranial nerve palsies.

Investigations:

1. CT scan to know the extent of the disease
2. bone scan

Treatment:

1- Hospital admission 2- If patient is diabetic control diabetes 3- high doses of IV antibiotics against pseudomonas (Ciprofloxacin, Tobramycin or third generation Cephalosporins.) given for 6 to 8 weeks.

4- Surgical debridements

INNER EAR PROBLEMS

1. Menier's Disease 2- Labrynthitis 3- Ototoxic Drugs

Menier's Disease

Is a disorder of the inner ear. Triade of:

1- Vertigo 2- SNHL 3- Tinitus

Aetiology:-

The exact cause is unknown, but there are many theories:

1- defective absorption of endolymph by endolymphatic sac 2-vasomotor disturbance 3-allergy

4-sodium and water retention 5- hypoadrenalism and hypopituitarism 6-hypothyroidism

6- autoimmune and viral aetiologies

Clinical Features:-

1-fluctuating hearing loss 2- episodic vertigo 3-tinnitus 4-sense of fullness in the affected ear

Treatment:-

1-reassurance is important in the acute attack 2- stop smoking

3- low salt diet 4- avoid excessive intake of water

5- management of acute attack by vestibular sedatives e.g cinnarizine 6-diuretics 7-neurotonics

Labrynthitis

Definition:

Is an inflammation of the inner ear

Types:

It may be viral, bacterial or syphilitic labrynthitis:

viral labrynthitis:

usually virus reaches the inner ear by blood stream

Measles, mumps and cytomegalovirus are well known to cause viral labrynthitis

bacterial labrynthitis

- bacterial infection usually reaches the labrynth either through the middle ear or CSF

common example is SNHL, which follows bacterial meningitis

syphilitic labrynthitis:

labrynthitis can be caused both by congenital and aquired syphilis

Symptoms:

1-vertigo which lasts for hours to days 2- nausia and vomiting 3-hearing loss in the affected ear 4- tinnitus

Diagnosis:

1- by history + symptoms 2- The patient usually has history of recent upper respiratory tract infection

Treatment:

1-intravenous broad spectrum antibiotic 2- labrynthin sedatives 3-bed rest

Ototoxic Drugs

some drugs can cause hearing loss either temporary or permanent

people with hearing loss have to avoid using ototoxic drugs as it can make the hearing loss worse

common ototoxic drugs are:

Aminoglycoside antibiotics:

- Streptomycin – Gentamycin – Tobramycin – Neomycin - Kanamycin- Amikacin

Diuretics: - loop diuretics

Antimalarials: Quinine - Chloroquine

Cytotoxic drugs: - Cisplatin - Carboplatin

Analgesics: - Salicylates - Indomethacin - Iboprofen

Chemicals: - Alcohol - Tobacco - - Marijuana

Miscellaneous: - Erythromycin –Ampicillin - Propranolol

Symptoms of ototoxicity:

Tinnitus and/or giddiness either during treatment or after completion of treatment

Treatment:

1-to stop the drug immediately 2-neurotonics

LARYNGEAL TUMOURS

Anatomy :

The larynx devided into three subdivisions :

- Supraglottic : aryepiglottic folds- arytenoids- false vocal cords

- **Glottic :** The area between the two vocal cords

- Subglottic : From the lower border of the glottis to the inferior border of the cricoid

-**Incidence:**

Accounts for about 1% - 2% of all new cancers world wide .

Epidemiology and pathophysiology :

- male to female rotio is 3-5:1 however female risk increase with increase smoking.

- peak incidence sixth to sevence decade of life .

- **Risk factors** :

1. tobacco. 2. alcohol. 3. nickel workers. 4. leather workers. 5. paints and wood dusts. 6. radiation exposture.

7. gastro-oesophageal reflux. 8. human papiloma virus mainly 9&11

Histopathology Squamous cell carcinoma accounts for 95% of all laryngeal cancers

Frequency : Most of laryngeal cancers occurs in the glottis followed by the supraglottic area and the least common is the subglottic cancer.

Spread : 1. direct extencion to adjacent structures. 2. metastasis to regional lymph nodes.

3. distant metastasis mainly to the lungs

Symptoms and signs :

1. hoarsness of voice . 2. lump in the neck. 3. sore throat or feeling of something stuck in the throat.

4.persistent cough. 5. stridor. 6. bad breath. 7. ear ache (refferd otalgia)

Investigations :

1. chest X-ray.____2. C.T scan or MRI._____3. tissue biopsy- for histological proof of cancer type and grade.

Treatment:

Depends on the location , type and stage of cancer.Treatment includes surgery, radiotherapy and chemotherapy alone or in combination.

SINONASAL TUMOURS AND EAR TUMOURS

Benign Sinonasal tumours :

These are non-cancerous growth arises in the nose and PNS. It includes :

1. nasal polyps 2. inverted papilloma 3. Haemangeoma 4. Osteoma 5. fibrous dysplasia 6. angiofibroma

The tumours grow slowly and do not spread to other parts of the body

But its problem when they became very large.It can affects the ability of the person to breath or may lead to loss of smell or may affects vision.

Inverted Papilloma

Definition : It is a benign epithelial tumour composed of well differentiated columnar or ciliated respiratory epithelium having variable squamous epithelium.

It has many synonymus :

1- viliform cancer 2 - Schneiderian papilloma 3-- transitional cell papilloma - 4 endophytic papilloma

5- cylindrical cell papilloma etc..

- it is relatively uncommon nasal tumour comprises about 0.5-4% of all benign tumours of the nose

- M:F is 3:1

- common in 5th to 7th decade of life however it has been reported in children

Adolescent and elderly.

Aetiology :

unknown but studies detected human papilloma virus 6,11,16&18 in up to 86% of cases.

- HPV in inverted papilloma is associated with a high chance of malgnent transformation and recurrence.

Site of origin: - the lateral wall of the nasal cavity , medial wall of maxillary sinus and less commonly from the ethmoid ,sphenoid and frontal sinuses.

Clinical features:

1. progressive unilateral nasal obstruction2. blood mixed nasal discharge 3.headache

4. facial pain 5. loss of smell 6. Epiphora

On examination: Pinkish polypoid smooth or lobulated mass with papillary surface located lateral to the middle turbinate in the nasal cavity.

Investigations: CT scan and MRI are the investigations of choice for pretreatment

Treatment :

Wide excision of the tumour by lateral rhinotomy or midfacial degloving approach with medial maxillectomy .

Endoscopic endonasal approach reduces complications of external approach but if the tumour is extensive it may not clear all the tumour.

Radiation therapy used as an alternative treatment however it should be reserved for inverted papilloma associated with SCC.

MALIGNENT SINONASAL TUMOURS

Neoplasms of the PNS are very rare accounts for < 3% of all aerodigestive tract tumours and nasal cavity tumours accounts for afraction of these tumours.

Epidemiology :

- M:F is 2:1 - commonly occurs in the 5th and 6th decade of life .

- tumours of the nasal cavity are equally devided between benign and malignant while most tumours of the PNS are malignant

- 55% of sinonasal tumours arises from the maxillary sinus, 35% from the nasal cavity, 9% from the ethmoid and the remainder from frontal and sphenoid sinuses

- SCC is the most common malignant histologic type (70-80%) followed by adenoid cystic carcinoma and adenocarcinoma (10% each)

Predisposing factors:

Exposure to industerial fumes - Wood dusts - Nickle-refining processes - Leather taining

Diagnosis:

Diagnosis of a sinonasal tumour is a chalenge because they are rare and difficult to distinguish them from their benign counter parts

A high index of suspicious must be maintained for a patints who do not responds to medical treatment

The symptoms are devided into 4 major catigories:oral,nasal,occular,facial and auditory

Oral :in 25-35%of pts: Pain involving the maxillery dentiture - Trismus - Palatal and alveolar ridge fullness - Frank erosion into oral cavity

Nasal in 50%of pts : Nasal obstruction - Discharge- Stuffiness - Congestion- Epistaxis Extension into the nasal cavity

Ocular in 25% of pts : Tearing – Diplopia - Fullness of lids – Pain – exophthalmos

Facial :

Infraorbital nerve hypesthesia - Cheeck swelling - Facial asymmetry

Auditory :

Conductive hearing loss due to SOM

Investigations : CT scan and MRI - CT scan is done to evaluate the bony architecture of the sinonasal tract & skull base MRI for soft tissue details - Soft tissue biopsy is mandatory

Treatment :

Based on the stage :

T1-T2 treated by either surgery or radiation therapy

T3-T4 treated by multimodal therapy (surgical removal followed by radiation or chemoradiation therapy)

TUMOURS OF THE EAR

External ear : 1. SCC 2. Basal cell carcinoma 3. malignant melanoma

Middle ear : Glomus Jugulare

These are rare slowly growing very vascular tumours of a group called paragangleomas.

they derived from glomus bodies which are derived from neural tissues and arise within the jugular foramen.

Rarely they may be found at other sites such as paraaortic area,trachea,larynx,mandible,nose,cilliary ganglion&fallopian canals

- it is slowly growing but locally aggressive

usually the bone of the skull is eroded with extension to occipital bone.

between 2%-4% of the tumours produce catecholamines,noradrinaline or dopamine resulting in hypertension and tachycardia.

Epidemiology :

- it is the most common tumour of the middle ear and the second common tumour of the temporal bone

presents between 40-70 years of age - female predominates 3-6:1

common in the left ear

-sometimes runs in families with autosomal dominant fashion

Clinical presentation :

Symptoms: 1.conductive deafness(60%) and pulsetile tinnitus(80%) are the most common symptoms

2. vertigo may occure3. pain is uncommon

4. less commonly facial palsy,hypogllosal nerve palsy or Horner's syndrome

Signs :

1. hearing loss conductive

2. there may be otorrhoea,haemorrhag,bruit and a presence of a middle ear mass :

Otoscopicaly :

Pulsatile,redish-blue mass behind the tympanic membrane which represents the tip of the iceberge of the tumour

3. look for evidence of paresis of cranial nerves IX to XI(jugular foramen syndrome) but it occurs very late years after HL and tinnitus

Associated diseases:

Other tumours which have been reported with glomus jugulare are :

1. pheochromocytoma 2. parathyroid adenoma 3. thyroid carcinoma 4.neurofibromatosis type I

Investigations:

1. PTA – conductive hearing loss

2. CT scan and MRI with enhancement – enlargement of the jugular foramina and jugular fossa

3. arteriography is important before resecting a large tumour

4. screen the patient for catecholamines

Management :

Surgical resection is the treatment of choice in young healthy patients

Surgery is more complex and showed be avoided in old patients with significant extension of the tumour

Alpha and beta blockers may be requires weeks before surgery to reduce blood pressure

Other options of treatment are:

Embolization - Radiotherapy - Gamma knife radiosurgery

Acoustic Neuroma (Vestibular Schwannoma)

It is a benign primary intracranial tumour of the mylin-forming cells of the vestibulocochlear nerve .

It comprises 5-10% of all intracranial neoplasms in adults

Incidence peak is 5th to 6th decade of life M:F is I:I

Signs and Symptoms :

1. epsilateral SNHL 2. disturbed sense of balance and alterd gait 3. vertigo with nausea and vometing

4. tinnitus in < 80% 5. pressure in the ear

Pathogenesis: May occur idiopathicaly or it may occur as part of Von Recklinghausen neurofibromatosis

It presents as solitary tumour in the 8th nerve usually arises from the vestibular portion within the internal auditory canal, as it grows it extends posteriorly into the

posterior cranial fossa & it occupy the angel between the cerebellum and the pons(cerebellopontine angle CPA)

Diagnosis :

MRI with gadolinium enhancement is the investigation of choice - PTA unilateral SNHL

Treatment :

Surgical removal and radiotherapy

Conservative treatment :

Treatment may begins with conservative period by monitoring the tumour annually by MRI to monitor its growth

In rare cases acoustic neuroma have been shrink spontaneously

ALLERGIC RHINITIS

Allergic rhinitis (AR) = inflammation of the lining of the nose, characterized by one or more of the following "nasal symptoms":

Nasal congestion - Nasal pruritis - Rhinorrhea -Sneezing

Nasal symptoms lasting > 1 hr on most days.

Predisposition Genetic: Positive Family history. Previous exposure/environmental factors

Association :- Asthma - Sinusitis - Otitis Media (with effusion) - (AR occurs frequently in pts with asthma and atopic dermatitis.)

Symptoms

Direct: Nasal congestion – Rhinorrhea –Pruritis – Sneezing - Eye tearing & pruritis - Ear & palate pruritis

Post nasal drip -Anosmia

Non-nasal: Sore throat - Chronic cough - Mouth breathing

Fatigue –Depression –Irritability – Anxiety -Sleep disturbance - Poor concentration - Reduced productivity.

Types :- Seasonal (intermittent sx) - Perennial (chronic & persistent sx)

Allergens :- Pollen: Mold**:** Spores in outdoors have seasonal variation . House dust mites:

Diagnosis History **-** Physical exam **-** Skin prick testing, Nasal smear, etc

TTT:- Antihistamines (first and second generation) – Decongestants – Corticosteroids - Cromolyn Sodium

HEARING LOSS

Physiology of hearing

External canal - Vibrates eardrum -Vibration moves though ossicles(Malleus, incus, stapes)

Stapes vibrates oval window of cochlea - Creates pressure wave in the fluid inside

Types of Hearing Loss ;- Sensori neural hearing loss - Conductive hearing loss

Sensori neural

hearing loss is the result of damage to the inner ear and accounts for over 90% of hearing loss in adults. This type of hearing loss is generally permanent.

Choclear. - Retrochoclear.

1- congenital.

Syndromoic. Alport syndrome. - Pendred Syndrome. - Usher syndrome

Non syndromic. - Inner ear malformation. -Infections.

2- infections.

Maternal Rubella. - Congenital Cytomegalovirus (CMV). - Mumps. - Measles.- Meningitis

3- drugs :- Streptomycin. - Gentamycin. - Qunine.

4- truma. Temporal bone fracture

5- noise induced hearing loss. 6- age related HL. (presbycusis)

Treatment:- Hearing aid. - Cochlear implant.

Conductive hearing loss :

occurs when there is damage or blockage in the outer or middle ear, preventing sound from traveling normally through the ear canal to the inner ear. This type of hearing loss can often be corrected.

Causes of Hearing Loss conductive:-

Ear wax . - **Foreign object.** - **Secretary otitis media.** - Perforated ear drum

Ttt:-treat the cause.

ENT ROUNDS

DR MONA

ENT examination

Tools

-1 Head mirrors (convex + light source(

-2 Otoscope (speculum for ear contain light source and lens(

-3 Nasal speculum

-4 Tongue depressor (there are two depressor straight one for protrusion of the tongue and curved one(

-5 Indirect laryngeoscope (mirror to see the inlet and put on uvula . should be heated , also it use in posterior rhinoscopy which put behind the uvula(

Nasal examination

Symptoms

)congestion – epistaxis – running nose – anosmia – nasal discharge – nasal obstruction - headache….etc(

Always you must examine ear, nose ,oropharynx

Inspection

By head mirror see nasal skeleton

Anterior part 1l2 cm cover by skin , called ala of the nose . lateral part consist of cartilage

Posterior part by bone

vestibule of the nose-:

part cover by skin (infection called vestibulitis (also frunculosis) contain hair follicle and sebaceous gland

by nasal speculum-:

firstly we do anterior rhinoscopy (for turbinate and meatus(

turbinate-:

functions:

-1 Increase humidification to avoid irritation of the lung

-2 Moisturizing and increase surface area

In tracheostomy the air irritation that occurs can cause cough and increase secretions

-3 Protection of lower respiratory tract

Meatus-:

)open into paranasal sinuses and protect them(

Superior meatus = sphenoidal

Middle one = ethmoidal and frontal paranasal sinus

Inferior = nasolacrimal duct open on it

Common sign and finding of nasal problem:

Inferior turbinate hypertrophy-:

due to variation of temperature

It become red in sinusitis and pale in allergic rhinitis.

Nasal polyps-:

herniated para nasal sinus mucosa (seen by CT scan(

commonest cause is allergic rhinitis , highly recurrent and very common in asthmatic patient

usually treated by steroid

nasal septum perforation-:

it has silent symptoms except headache

common cause (is nasal picking(

specific cause (syphilis- leshmeniasis , leprosy , T.B(

non specific cause (lymphoma , t-cell lymphoma (hard(

wegnar granulomatosis (generalize vasculitis treated with steroid ((hard(((

nasal hemangioma-:

common benign tumor (in dry areas(

squamous cell carcinoma-:

the commonest malignant sinunasal tumor.

secondly we do posterior rhinoscopy (not useful , now days we use endoscopy(

X-ray for paranasal sinuses

C t scan is also useful

Examination of the oropharynx

Anatomically start anteriorly from vermian (part of the lip cover by mucosa) to the end of anterior two third of the tongue.

Superiorly is soft palate

Laterally two pillars

Behind this is oropharynx

You should do total examination to oral mucosa , and see if big problem found :- e.g

Moniliasis (HtN,DM) – leukoplakia – bleeding gums (in scurvy vit c def and in leukemia(

-Tongue ulcer (if painless and duration more than 3 week you should do biopsy.(

*Opposite to second molar we see tensen duct of the parotid gland.

*suppurtive thialoadenitis

Examination of the ear

By head mirror

Inspection :- pinna – auricle and other part

Common finding-:

•Auricular hematoma preceded by trauma

•Auricular abscess (treatment tide plaster with tide dressing and squeezing to protect cartilage from death or ischemia .(blood supply come from perichondrium

Palpate and then examine

By otoscope

We see the tympanic membrane (upper part called pars flaccida cover by respiratory epithelium. Other part called pars tensa

Not retracted or bulged

Translusent == grey normal

Reddish in acute otitis media

Type of tympanic membrane perforation (central – marginal(

Otitis media

Inflammation of the middle ear

Type of O.M :- acute OM subacute OM chronic OM

Causative organisms-:

Streptococcus pneumone – H.influnze, Moraxella catarrhalis

Symptoms-:

Otalgia – earche - headache usually associated with brain abscess

Predisposing factors-:

Upper repertory tract infection

Allergy

Mastoiditis is a complication of acute and chronic otitis media

Here the pinna is protruded and there is swelling and oedema

Chronic otitis media

Most characteristic symptom is ear discharge

Type of chronic otitis media-:

Tubotympanic (safe) disease.(Perforation in the paras tensa(.

Atticoantral (unsafe disease).(perforation in the paras flacida(

Tracheostomy

is a surgical procedure to create an opening through the neck into the trachea.A tube is usually placed through this opening

-1 Plastic Tracheostomy Tube(Portics(

-2 Metalic Tracheostomy Tube

Advantage of plastic tube-:

-1 Suitable for patient who going to radiation or surgical treatment

Disadvantage-:

-1need strong Tracheostomy care

-2difficult to clean

-3can not stay for long time

Advantage of metallic tube-:

-1 Easy to clean

-2 Can stay for long time without any change

Disadvantage-:

-1 Not Suitable for patient who going to radiation or surgical treatment with general aneathesia

Tonsillitis vs diphtheria

Diphtheria should be differentiated from acute membranous tonsillitis

Diphtheria can cause death in few days by cardiac toxicity (ventricular arrythima(

Diphtheria is more toxic - by age

High fever in acute membranous tonsillitis

Highly rapid forming of pus in acute membranous tonsillitis

Bradycardia in Diphtheria

Generalized cervical lymph node enlargement in Diphtheria (pull shape(

In Diphtheria all uvula and areas beside it is involved

The membrane look dirty in Diphtheria but look white in acute tonsillitis

The membrane is detached in acute membranous tonsillitis but dosnot in Diphtheria (pseudomemrane(

Treatment of Diphtheria-:

-1 Isolate the patient

-2 Notification for ministry of health

-3 Give patients antitoxin

-4 Give m –penicillin

Operation of pretonsillar abscess-:

Side of operation the crosage between the imaginary line from base of uvula and line from last molar tooth

)to avoid injury of internal carotid artery(

Cases group c

-1 FRUNCULOSIS

Inflammation of hair follicle by staph

Any patient with frunculosis in dangerous triangle of the face should be admitted to hospital (dangerous triangle start from labe in forehead to medial epicanthus,then to medial nasal fold , upper lip and angel of the mouse.(

Any infection in this area is very dangerous because it supply by facial ophthalmic vein which can transmit infection to cavernous sinus.

Sings of cavernous sinus thrombosis-:

Facial oedema - vestibulitis - frunculosis - red conjunctivitis

-2 PATIENT WITH VERTIGO

Benign paroxysmal vertigo occurs for seconds

Vertigo in meniers disease long for minutes

Vertigo in labrynthitis extend for days

-3 PATIENT WITH OTITIS EXTERNA

More common in swimmer and people who live in hot and climate weather

And person who complaining of exostosis (multiples stiomas in external ear canal.(

-4 MALIGNANT OTITIS EXTERNA

)necrotizing O.E or osteomyelitis of the skull base(

Occur in elderly and diabetic patients

On examination we will find granulation tissue

Investigation :- CT scan – bone scan (more accurate(

Bad prognostic sing (cranial nerve palsy either facial nerve alone or multiples cranial nerves palsies(

-5 PATIENT COMPLAIN OF EPISTAXIS

)bleeding per nose) as side effect of chemotherapy

- Always if epistaxis is profuse you should suspect general cause that involved the mucosa

TTT : anterior and posterior packing

-6 Female 40 year old on reproductive age complaining of dysphagia (plammer-venson syndrome , it occurs due to iron deficiency anemia that can cause esophageal web (premalignant (can lead to squamous cell carcinoma(

Investigation-:

Direct laryngeoscopy under general anesthesia

Management-:

Iron supplement intramuscular

Close follow up 3 moth , 6 month , 1 year to catch the cancer early

-7 Foreign body bronchus

-8 Parotid abscess (aspiration we open it by classical way(

-9 CA larynx

-10 Mastiodectomy to avoid complication of O.M

ENT exam

Batch 13

1- The most common causative agent of acute suppurative otitis media are ?

a- H.influnze
b- Hemolytic streptococcus
c- E.coli
d- Staph. Aureus
e- Pneumococcus

2- The following are the intracranial complication of otitis media except?

a- Extra Dural abscess
b- Subdural abscess
c- Meningitis

3- Perforation of nasal septum occurs in ?

a- Tuberculosis
b- Syphilis
c- Lupus
d- Trauma
e- All of the above

4- adenoidectomy is indicated in?

a- Adenoid face
b- Recurring attack of earache

5- Main functions of the nose are ?

a- Filtration of the air
b- Smell distinction
c- A& b

6- Complication of sinus disease include?

a- Orbital cellulitis

7- The most useful preoperative screening test for potential tonsillectomy and adenoidectomy bleeding is the ?

a- Partial thromboplastin time
b- Bleeding time
c- Clotting time

8- Rhinolitis?

a- Can be formed from organized blood clots
b- They are characterized by extreme pain
c- Is stony hard nose cause by infiltration with tumor

9- clinical features of allergic rhinitis ?

a- Symptoms may be seasonal or perennial
b- Age of onset is usually in the 4^{th} decade
c- Anosmia is the main complaint

10- Pathology of nasal polyps ?

a- Child hood nasal glioma is a malignant polyp
b- Epithelial metaplasia occurs in polyps of vasomotor rhinitis
c- Fungal infection can be the underlying cause

11- Stridor?

a- can be cause by enlarged adenoids
b- in laryngomalacia needs urgent tracheotomy
c- may be inspiratory ,expiratory or botin
d- always needs early management

12- the following are indication of tracheotomy

a- bilateral vocal cord paralysis
b- glottis edema
c- laryngeal cancer
d- acute epiglottitis
e- all of the above

13- **obstructive sleep apnea ?**

a- can be a complication of enlarged adenoid and tonsil
b- can be lead to core pulmonale or heart failure
c- can be treated by tracheotomy in adult

14- nasopharyngeal carcinoma ?

a- surgery is the treatment of choice

b- prognosis is good
c- trotters traid may be elicited
d- deafness may be presenting symptoms

15- **Episodes of stridor**
a- Expiratory stridor usually indicate supraglottic obstruction
b- An inhaled foreign body should be excluded
c- A vocal cord paralysis may be present
d- If due to laryngomalacia the prognosis is good

16- clinical picture of a foreign body in the esophagus include ?
a- Back pain
b- Hoarseness
c- Excessive salivation
d- Dyspnea

17- Diseases of the throat?
a- Adenotonsillitis is commonly seen in children
b- Erythromycin I the drug of choice
c- Sulphonamide are preferable
d- Staph. Aureuos the commonest organism

18- Deafness?
a- Secretory otitis media cause conductive deafness
b- A caustic neuroma causes conductive deafness
c- External auditory canal osteoma cause sensory deafness

19- In carcinoma of the larynx
a- Hoarseness of voice is intermittent
b- Stridor precede the change in the voice
c- Diagnosis is direct by laryngoscopy and biopsy

20- Causes of epistaxis?
a- Idiopathic bleeding from little area is commonest
b- Digital trauma is a commonest cause
c- A &B
d- Venous hypertension is a factor in chronic bronchitis

21- The 7th cranial nerve?
a- Exits from the facial canal through the stylomastoid foramen
b- In upper motor neuron lesion both frontalis muscle movements are affected
c- Bells palsy is diagnosed by exclusion of all other causes

22- Patient with otosclerosis ?

a- Are commonly of negroid race
b- Female to male 4:1
c- May notice an onset or increase of deafness during pregnancy

23- Cerebrospinal fluid rhinorrhoea?

a- Symptom is clear watery fluid dripping from the nose
b- The site of leak is determined by clinical examination
c- The initial treatment is to pack the nose with adrenaline

24- Blood supply of the nose ?

b- little area is supplied by branches of the greater palatine, sphenopalatine , posterior ethmoidal is and superior labial artery
c- The maxillary artery provides the major blood supply to nasal fossa
d- The posterior ethmoidal is a branch of the sphenopalatine artery

25- Foreign body in the nose ?

a- Usually present in adult life
b- Epistaxis is the commonest clinical feature
c- Non organic materials cause more tissue reaction than organic
d- General anesthetic is often required in children

26- Secretory otitis media

a- Most prevalent is second decade
b- Infection is possible etiological factor
c- Treatment can be awaited till culture result is available

27- **Ototoxic drugs include ?**

a- Streptomycin
b- Gentamycin
c- Penicillin
d- Anticonvulstants
e- A & b

28- Epistaxis ?

a- May occur due to nasal inflammation
b- May occur with nasopharyngeal carcinoma
c- May occur through the posterior nares
d- All of the above

29- In malignant tumors of tonsils

a- Most tonsillar tumor are benign

b- The base of the tongue is affected more the tonsil
c- Sarcoma may occur
d- Children are affected more than adults

30- In acute epiglottis

a- The causal organism is cryne bacterium
b- Hoarseness of voice occur
c- The is no stridor

Write short note on

1- Causes of vertigo

2- Causes of dysphagia

3- Indication of tracheostomy

ENT Exam (PHT)

1_ causative agent in acute tonsillitis:

_ group A beta hemolytic streptococi

2_Differences bt diphtheria and membrounes tonsillitis (5 dif - short note)

3_Major cause of epistaxis in elderly people :

Hypertension

4_Manage a patient with little area epistaxis by :

A coutry

Anterior pack

Posterior pack

5_drug of choice for acute tonsillitis (short note)

6_type of acute tonsillitis (short note)

7_Contraindication for tonsillectomy

8_Adenoid situated in

Nasopharyngeal

9_Adenoid face characteristic

10_ the most common sign in URT obstruction is: ……stridor …….. (short note)

11_ stridor can be :

-inspiration only

-expiration only

-Both inspiration and expiration

12_the inflammatory causes of stridor (short note) :

acute laryngitis

laryngeotracheobronchitis (croup)

acute epiglottitis

diphtheria

13_the most common cause of URT obstruction in children is :

Foreign body inhalation

14_ treatment of bronchial FB by :

Bronchoscopy

Surgery

Aspiration

15_ causative agent of Otomycosis is :

16_meatal skin wall are affected in

_Herpes Zoster oticus (Ramsy Hunt Syndrome

17_Malignant Otitis Externa is common in :

-Old diabetic patients

-20-30 years old patients

_None of the above

18_In Malignant Otitis Externa:

-facial palsy is common

19_ causative agent in acute Otitis Media are

_streptococus pnemonea

20_ causative agent in Cholesteatoma\ Malignent Otitis Externa:

- pseudomonas

21_ intracranial Complications of otitis media:

22_Types of hearing loss (short note)

23_ congenital Hearing loss due to (short note)

24_ conductive hearing loss affect :

-external ear and inner ear

-middle ear and external ear

-external ear and middle ear

25_causes of facial nerve paralysis (short note)

26_facial nerve paralysis Types (short note)

27_ Presentation and signs of patient with facial nerve paralysis (short note)

28_ Complication of sinus disease include?

Orbital cellulitis

29_ contraindication for tonsillectomy